

To the Accreditation Council
of the Eurasian Centre for
Accreditation and Quality Assurance
in Education and Healthcare
21.12.2023

REPORT
OF AN EXTERNAL EXPERT COMMISSION ON THE RESULTS OF
EDUCATIONAL PROGRAM EVALUATION
7R01148 “NUCLEAR MEDICINE” NJSC “ASTANA MEDICAL UNIVERSITY”
FOR COMPLIANCE WITH THE ACCREDITATION STANDARDS OF
POSTGRADUATE EDUCATION PROGRAMS (RESIDENCE SPECIALTIES)
OF MEDICAL EDUCATIONAL ORGANIZATIONS

external expert evaluation period: December 19-21, 2023

Astana, 2023

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LIST OF SYMBOLS AND ABBREVIATIONS

Abbreviation	Designation
NJSC "AMU"	Non-profit joint-stock company "Astana Medical University";
CF "UMC"	Corporate Foundation "University Medical Centre"
EP	Educational program
QAC	Quality Assurance Committee
AC	Academic Council
ECAQA	Eurasian Centre for Accreditation and Quality Assurance in Education and Healthcare
SCES	State compulsory education standard of the Republic of Kazakhstan
EEC	External Expert Commission
MC PAA	Hospital of the Medical Centre of the President's Affairs Administration of the Republic of Kazakhstan
IEP	Individual educational plan
MOH RK	Ministry of Health of the Republic of Kazakhstan;
MSHE	Ministry of Science and Higher Education
Research institute	Research Institute
WC	Working curriculum
IWR	Independent work of a resident
IWRT	Independent work of the student under the guidance of a teacher
CBL	Clinical Problem Learning
CbD	Case-based learning
PBL	Problem-Based Learning
TBL	Team-oriented training
AC	Academic Council
SC	Scientific Council
AEPMS	Automated educational process management system

1. Composition of the External Expert Commission

In accordance with ECAQA Order No. 28 dated December 4, 2023, an External Expert Commission (hereinafter referred to as the EEC) was formed to conduct during the period December 19-21, 2023 external evaluation of the residency educational program in specialty 7R01148 “Nuclear Medicine” of NJSC “Astana Medical University” (hereinafter referred to as NJSC “AMU”) in the following composition:

№	Status as part of the EEC	Full name	Academic degree, position, place of work
1	Chairman	Kurmanova Almagul Medeubaevna	Doctor of Medical Sciences, Professor of the Department of Clinical Specialties of the Higher School of Medicine of the Al-Farabi Kazakh National University, Leading Researcher at JSC “Scientific Centre for Obstetrics, Gynaecology and Perinatology”, Almaty
2	Foreign expert	Zaripova Zulfiya Abdullovna	Candidate of Medical Sciences, Head of the Centre for Certification and Accreditation of the First St. Petersburg State Medical University named after Academician I.P. Pavlova
3	Academic expert	Yesenkulova Saule Askerovna	Doctor of Medical Sciences, Professor of the Centre for Postgraduate Education of JSC “Kazakh Research Institute of Oncology and Radiology”, Member of the Association of Oncologists of the Republic of Kazakhstan
4	Academic expert	Talkimbaeva Nailya Anuarovna	Doctor of Medical Sciences, Head of the Simulation Centre of the “Kazakh National Medical University named after S.D. Asfendiyarov”
5	Academic expert	Shabdarbaeva Daria Muratovna	Doctor of Medical Sciences, Professor, Pathologist of the highest category, Forensic Medical Examiner of the highest category, Head of the Department of Pathological Anatomy and Forensic Medicine named after Professor Yu.V. Pruglo NJSC "Semey Medical University"
6	Academic expert	Shyntas Kasym Malikuly	MBA, Head of the Training and Simulation Centre of the MSI on the REM "City Emergency Medical Care Station" of the Akimat of Astana
7	Expert employer	Mukasheva Saltanat Bolatovna	Candidate of Medical Sciences, Master of Public Health, Head of the Department of Organizational and Methodological Work of the NJSC “National Centre for Children's Rehabilitation”
8	Resident expert	Mukazhanov Nurlan Adilbekuly	resident of the first year of study in the specialty "Adult Oncology" LLP "National Scientific Oncology Centre"

The EEC report includes a description of the results and conclusion of an external evaluation of the educational program 7R01148 “Nuclear Medicine” for compliance with the Accreditation Standards for postgraduate education programs (residency specialties) of medical educational institutions and conclusions (hereinafter referred to as the Accreditation Standards), recommendations of the EEC for further improvement of approaches and conditions for the implementation of the above-mentioned educational program and accreditation guidelines for the ECAQA Accreditation

Council.

2. General part of the final report

2.1 Presentation of the residency educational program in the specialty 7R01148 “Nuclear medicine”

Name of organization, legal form of ownership, BIN	Non-profit joint-stock company "Astana Medical University" BIN 080940008218
Management Body	Ministry of Health of the Republic of Kazakhstan
Full name of the first manager	Nadyrov Kamalzhan Talgatovich
Date of creation	The university was founded in October 1964
Location and contact details	The Republic of Kazakhstan, 010000, Astana, Beibitshilik st., 49A Phone: +7(7172)539424
State license for educational activities in residency (date, number)	No. KZ93LAA00014823, date of issue 03/19/2019
Information about branches, subsidiaries (if any)	No
Year of commencement of the accredited educational program (EP)	2024
Duration of training	2
Total number of graduates since the beginning of the EP implementation	no
Number of residents in the EP since the beginning of the current academic year	no
Full-time teachers/part-time teachers involved in the implementation of the EP	The total number of teachers is 4, including full-time teachers - 2, part-time teachers - 2. Sedateness,% - 75 Categorization, % - 100
Website Instagram Facebook with active pages	https://amu.edu.kz/

2.2 Information about previous accreditation

To date, accreditation of the educational program 7R01148 “Nuclear Medicine” has not been carried out.

2.3 Brief description of the results of the analysis of the self-assessment report of the residency educational program in specialty 7R01148 “Nuclear Medicine”

The self-assessment report for the residency educational program in specialty 7R01148 “Nuclear Medicine” (hereinafter referred to as the report) is presented on 120 pages of main text, 20 pages of appendices, copies or electronic versions of 26 documents located at https://drive.google.com/drive/folders/1mVdQpQkP_O3Apx8stVrihspvB5CJWj3R.

The report is characterized by completeness of answers to all 9 main accreditation standards and criteria, structured taking into account the recommendations of the Guidelines for self-assessment of the educational program provided to the educational organization by the accreditation centre - ECAQA, as well as internal consistency of information. The report is accompanied by a covering letter signed by the rector K.T. Nadyrov, which confirms the accuracy of the quantitative information and information included in the self-assessment report.

The report contains a list of 17 members of the internal self-assessment commission, indicating the responsibilities of each employee, information about the representative of the organization responsible for conducting the self-assessment of the educational program - Yelubaeva M.K., dean of the residency school.

Self-assessment of the educational program 7R01148 “Nuclear Medicine” was carried out on the basis of the order of the rector of the university No. 08-01/247 dated September 18, 2023 “On conducting a self-assessment of the educational program of residency 7R01148 “Nuclear Medicine”.

All standards contain the actual practice of the University in training residents in the specialty 7R01148 “Nuclear Medicine”, taking into account the start of admission of students in 2024, reasoned data, examples of the implementation of the objectives of the educational program, national and international events, methodological support, confirming compliance with the requirements of accreditation standards. The description in the self-assessment report is quite complete and updated regarding the number of residents, teachers, administration, information on selection and admission, training results, results of evaluation of knowledge and skills, material and technical base of the university and clinical sites, contractual obligations with partners (universities, associations, and database), financial information, plans for development and improvement.

The report is presented to the ECAQA in complete form, with data adjusted according to the above recommendations, written in competent language, the wording for each standard is clear and understandable and described in accordance with the criteria of the standards, the tables contain references in the text and are continuously numbered.

3. Description of external expert evaluation

External expert, working within the framework of the evaluation of the educational program 7R01148 “Nuclear Medicine” was organized in accordance with the Guidelines for conducting external evaluation of educational organizations and educational programs of ECAQA / Dates of visit to the organization: December 19-21, 2023 Sequence of the visit within 3 days is presented in detail in **Annex 3** to this report

To obtain objective information, members of the EEC used the following methods and their results:

- interviews with management and administrative employees – 14 people;
- interviews with residents – 2 people;
- studying the website <https://amu.edu.kz/>;
- interviewing 14 employees, 3 teachers, 2 mentors;
- survey of teachers - 35;
- review of resources in the context of implementation of accreditation standards: 2 practice/clinical training bases visited: Clinical and Academic Department of Radiology and Nuclear Medicine of the Corporate Foundation “University Medical Centre” of Nazarbayev University, Department of Nuclear Medicine and RSE on the REM "Hospital of the Medical Centre of the President's Affairs Administration of the Republic of Kazakhstan" Centre of nuclear medicine, where training is provided in 2 educational programs with the participation of 3 full-time teachers/part-time teacher;
- study of educational and methodological documents in the amount of 5 units both before the visit to the organization and during the visit to the departments (the list of documents studied is in Annex 2).

The team of the accredited organization ensured the presence of all persons indicated in the visit program and according to the lists of interview sites (Table 1).

Table 1 - Information on the number and category of participants in meetings, interviews, talks with members of the EEC

№	Position	Quantity
1	Zhunusova Aigul Bitimbaevna	Vice-Rector for Academic Affairs

2	Gazalieva Meruert Arstanovna	Vice-Rector for Clinical Affairs
3	Koikov Vitaly Viktorovich	Vice-Rector for Research and Strategic Development
4	Saidangazin Dias Dauletbekovich	Chief of Staff of the Rector
5	Saurbaeva Gaukhar Kairatovna	Head of Simulation Center
6	Yelubaeva Maral Kuandykovna	Dean of the Residency School
7	Maltabarova Nurila Amangalievna	Chairman of the QAC of the EP residency, Head of the Department of Anaesthesiology and Emergency Medical Care
8	Barlybaeva Aisha Yermukhanovna	Acting Director of the Institute of Continuing Professional Education
9	Imanova Zhazira Aktaevna	Head of the Centre for Practice and Development of Clinical Activities
10	Bilan-Kotelnikova Liliya Ivanovna	Head of the Centre for International Cooperation
11	Zikenov Igor Irsainovich	Deputy Head of HR Department
12	Medeubaeva Aigul Zhakanovna	Head of the Planning and Economic Analysis Department
13	Yesirkepova Gulmira Zharylkapkyzy	Library director
14	Tleshova Nurgul Serikovna	Head of office registrar

On the last day of the visit to the organization, a meeting of EEC members was held based on the results of the external evaluation. A final discussion was held on the results of the external evaluation of the educational program, study of documents, results of interviews, talks, and questionnaires. Members of the EEC began drafting the final report of the EEC. Generalizations of the results of the external evaluation are made. The experts individually completed the “Quality Profile and criteria for external evaluation of the educational program 7R01148 “Nuclear Medicine” for compliance with the ECAQA Accreditation Standards. There were no significant comments made by the EEC members. Recommendations for improving the educational program were discussed and the chairman A.M. Kurmanova held a final open vote on the recommendations for the ECAQ Accreditation Council.

Comfortable conditions were created for the work of the EEC, and access to all necessary information and material resources was organized. The Commission notes the high level of corporate culture of the University, the high degree of openness of the team in providing information to members of the EEC. The team of NJSC "AMU" ensured the presence of all persons indicated in the visit program and according to the lists of interview participants.

According to 48.57% of teachers, the survey conducted by the ECAQA is useful for developing recommendations for improving key areas of activity of an accredited educational organization.

The sequence of the visit during December 19-21, 2023 is presented in detail in the Visit Program, which is in the documentation of the accreditation agency and in the annex to this report. At the end of the visit, the chairman of the EEC announced recommendations based on the results of the external evaluation as part of specialized accreditation to the management and employees of the educational organization.

JSC "AMU" has been under the subordinate control of the Ministry of Health of the Republic of Kazakhstan since 2019 JSC "AMU" was reorganized into the non-profit joint-stock company "Astana Medical University" (NAO "AMU"). The University has a state license from the Committee for Control in the Sphere of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan dated January 31, 2009, No KZ93LAA00014823, without a time limit, for the right to carry out educational activities under programs of higher and postgraduate professional education.

The implementation of the EP in specialty 7R01148 “Nuclear Medicine” is carried out in accordance with the Mission of the University and is available on the official website <https://amu.edu.kz/>. Goals, activities to achieve goals and target indicators that contribute to improving

the system of training residents at the university are reflected in the “Strategic directions of the development plan of NJSC “AMU” for 2022-2026, approved at the meeting of the Board of Directors on May 30, 2022, minutes No. 17 .

NJSC "AMU" in 2019 passed [institutional accreditation](#) for compliance with the standards of institutional accreditation of higher education organizations for a period until 2024 in accordance with the new edition of the European Standards and Guidelines for Ensuring the Quality of Education (ESG).

NJSC "AMU" in the field of ensuring the quality of education has implemented international standards ISO 9000:2001, ISO 9001:2000, ISO 9001:2008, on information security, social responsibility, risk management system, environmental management, occupational safety and health, energy management systems . The university has integrated the international distance learning system MOODLE (<https://dl.amu.kz/>), since 2012 - at the level of additional professional education.

In 2022, the university took 2nd place in the ranking of the Independent Agency for Quality Assurance in Education for scientific publications, 5th place in the ranking of websites of medical universities for information support of educational institutions, a “3-star” quality mark in the QS Stars ranking categories of training and employability.

The university has concluded memorandums of cooperation in the field of healthcare with universities from far and near abroad (CIS countries - 45 memorandums; Europe - 37; Central Asia - 11), within the framework of which academic mobility programs are being implemented for both students and teaching staff. Among them are universities that occupy high positions in the international QS WUR ranking - Seoul National University, Korea; University of Rome “La Sapienza”, Italy; Medical University of Vienna, Austria; University of Ljubljana, Slovenia.

4. Analysis of compliance with accreditation standards based on the results of an external evaluation of the residency educational program in specialty 7R01148 “Nuclear Medicine”

Standard 1: MISSION AND OUTCOMES

1.1 Mission statement

During the implementation of program activities, namely, based on the results of interviews with the management of NJSC "AMU", members of the advisory body of the QAC and the Academic Council, in interviews with residents and teachers, compliance with the criteria of **standard 1** was established. All participants in the educational process know the mission of the educational program, accepted participation in the formation of proposals for formulating the mission, while the mission is brought to the attention of potential residents through the website, social networks, and information letters to medical organizations. The strategic development plan of NJSC "AMU" for a period of 5 years has been reviewed, including the following areas: Training of competitive and professionally competent healthcare specialists in in-demand specialties and specializations; Transformation into a research university and its development as a leading centre for the translation of new knowledge and innovations into health care practice and policy; Development of the university as an integrated academic medical centre operating on the basis of the trinity of education, science and practice; Development of human resources and improvement of the university management and financing system; Development of infrastructure and material and technical base of the university. This confirms the accreditation standard has been met and demonstrates the goals, objectives and prospects of the organization. EP 7R01148 “Nuclear Medicine” was introduced in the Republic of Kazakhstan in 2021. The accreditation procedure for the Educational Program is being carried out for the first time.

During the visit to the departments of the organization NJSC "AMU", experts noted the strengths of the educational organization in relation to the accredited educational program. This is a powerful [organizational structure of NJSC “AMU”](#), which includes 106 structural divisions. The main structural divisions of the University are institutes, dean's offices, departments, departments, centres, which include Academic staff, administrative and management personnel, educational and

support staff, and other personnel. NJSC "MUA" operates units that are directly related to the educational program 7R01148 "Nuclear Medicine", which can be noted as the best practice in education, namely, the integration of scientific, therapeutic, diagnostic and educational processes.

The results of studying the documentation demonstrate that the mission of the organization and the mission of the educational program 7R01148 "Nuclear Medicine", and the educational process are structured in accordance with the State Standards of Education and Laws and Statutory Instruments (LSI) in postgraduate education and healthcare.

The educational organization conducts training for residents in the following clinical bases and departments: Clinical and Academic Department of Radiology and Nuclear Medicine of the Corporate Foundation "University Medical Centre" of Nazarbayev University, Department of Nuclear Medicine and RSE on the REM "Hospital of the Medical Centre of the President's Affairs Administration of the Republic of Kazakhstan" Centre of Nuclear Medicine, where patient-oriented approach through innovations that are introduced into the diagnostic and treatment process. The educational organization pays due attention to the safety and autonomy of patients through their correct identification, effective communication, increasing the safety of examination and treatment, reducing injuries, and maintaining consistent treatment.

Experts have established that residents have appropriate working conditions to support their own health, since NJSC "AMU" provides regular medical examinations, routine vaccinations, including flu vaccinations, etc. When working at clinical sites, all types of liability for causing harm to life are provided and/or the health of residents when carrying out any types of activities on the territory of the Clinic are assigned entirely to the Clinic (in accordance with the Agreement on joint activities with the clinical base).

Such basic competencies of residents in an accredited specialty, such as knowledge of anatomy, medical physics and radiation diagnostics, as well as special competencies including nuclear medicine methods, help educational organizations apply innovative forms of training. This will allow residents to develop such skills and qualities as conducting radionuclide diagnostics and radionuclide therapy, preparing patients for positron emission tomography/positron emission tomography - computed tomography, single-photon emission computed tomography, radionuclide therapy.

NJSC "AMU" encourages residents to strive to participate in research in their chosen specialty through portfolio monitoring, and also ensures the participation of residents in events such as conferences and training seminars, symposiums, trainings, and master classes.

At the same time, during interviews with residents, experts identified an insufficient mechanism of motivation and encouragement for the scientific achievements of residents

1.2 Professionalism and professional autonomy

Experts have determined that the formation of professionalism includes elements of institutional autonomy. Academic freedom implies independence in the development and implementation of EP, within the framework of standard curricula, State Compulsory Educational Standards (Order of the Ministry of Health of the Republic of Kazakhstan No. MOH RK-63 dated 07/04/2022). Freedom in drawing up EP is achieved by describing syllabuses, QED, IEP, WC, the form, structure and procedure for development of which is determined by the organization independently. The EP, after approval by the department, is reviewed at meetings of the QAC and the Academic Council. The educational organization promotes the professional autonomy of residents by providing them with a choice of elective disciplines.

Experts have established that the educational organization fully exercises autonomy in relation to the selection of residents for an accredited specialty, the development of the educational program 7R01148 "Nuclear Medicine", and the determination of approaches to formative and summative evaluation of residents. Responsible employees showed the experts a document defining the requirements for teachers of the residency program. The employment of residents is regulated by the Career and Employment Centre and the indicator for the university as a whole is 98.9% for 2023.

To verify **standard 1**, a meeting was held with the vice-rectors of NJSC "AMU", members of the consultative and advisory body. During the conversation, the experts asked the following questions: "Participation of stakeholders in formulating the mission", "How to communicate the mission and final results?", "On encouraging residents when carrying out scientific research." During the responses, the leaders of the organization gave confirming answers.

The academic freedom of residents is manifested within the framework of training in the specialty 7R01148 "Nuclear Medicine" and involves the study of elective disciplines. The catalogue of elective disciplines is updated annually. Elective disciplines for study are chosen by residents independently

The 35 teachers surveyed (on the resource <https://webanketa.com/21> survey questions) also answered that 57.14% were satisfied with the organization of work and workplace in this educational organization, and 31.43% partially agreed with this statement. Experts determined that the organization has a healthy microclimate, since the manager is quite accessible to both residents and employees and responds promptly to requests. In the questionnaire, 71.43% of teachers are satisfied with the microclimate of the organization, and 17.14% are partially satisfied. According to 60% of educational organizations, a teacher has the opportunity to realize himself as a professional in his specialty. For your information, a total of 35 people responded (26 in total in the state), with 11.43% having teaching experience of up to 5 years, 20% having up to 10 years, and 68.57% having more than 10 years of teaching experience.

1.3 Final learning outcomes

The final learning outcomes are defined and included in the Educational Program 7R01148 "Nuclear Medicine", which was developed and approved at a joint meeting of the Department of Radiology and Nuclear Medicine and the Department of Radiology named after Academician Zh.Kh. Khamzabaev (protocol No. 7 of 02.24.2023); in the structure of the discussion of the Educational Program at the meeting of the QAC (minutes No. 4 of April 14, 2023) and the Academic Council (minutes No. 9 of May 3, 2023). Informing interested parties about the final results of training of residents in the specialty 7R01148 "Nuclear Medicine" is carried out by posting on the university website <https://amu.edu.kz/> in the "Educational programs" section, in the "Residency" tab, social networks. The experts were convinced that the professional behaviour and communication skills of residents are formed by familiarizing employees and residents with the provisions of internal regulatory documentation, requirements for the organization of the educational process, the main directions of work of structural divisions, the internal regulations of the University and are reflected in the corresponding document Internal Regulations of Residents of NJSC "AMU" (Minutes No. 7 dated October 14, 2019). Faculty and residents are informed about the [code of ethics](#).

When determining the final learning outcomes, the developers-employees of the Research Institute named after Academician Zh.Kh. Khamzabaev took into account the previous results of training in undergraduate and internship courses, and also took into account the goals and objectives of subsequent continuous professional development in the chosen specialty.

The surveyed teachers responded that 40% were completely satisfied with the level of previous training of residents, and 34.29% were partially satisfied.

Experts have established a clear continuity between the final results of previous resident training (prerequisites) and residency training, and subsequent continuing professional development programs.

1.4 Participation in the formulation of mission and final results

When developing the goals and objectives of the educational program 7R01148 "Nuclear Medicine", all interested parties took part, which is confirmed by the documents: Protocol No. 7 of 02/24/2023 of the joint meeting of the Department of Radiology and Nuclear Medicine and the Department of Radiology named after Academician Zh.Kh. Khamzabaev, protocol No. 4 of 04/14/2023 of the meetings of the QAC and minutes No. 9 of May 3, 2023 of the meeting of the Academic Council. The following proposals were made for 2024-2025, such as introducing the discipline "Medical Law" into CED. When updated regulations and orders in education and healthcare

are released, the developers of the educational program take into account all recommendations and make appropriate changes.

At the same time, when talking with employers and experts, a clear answer was not received to the question “Do you participate in the formulation of the mission and goals of the organization, educational program?”, “What personal contribution did employers make in the development of the educational program?” Unfortunately, there was no reception for residents in specialty 7R01148 “Nuclear Medicine”, so it was not possible to ask questions to the residents.

Conclusions of the EEC on the criteria. Compliant out of 14 standards (including 9 basic, 5 improvement standards): fully - 12, partially - 2, do not comply - 0.

Recommendations for improvement identified during the external visit:

- 1) It is recommended to actively involve residents in formulating the mission and final results;
- 2) To develop a mechanism of motivation and encouragement for the scientific achievements of residents in the specialty “Nuclear Medicine”.

Standard 2: EDUCATIONAL PROGRAMME

2.1 Framework parameters of the postgraduate medical education program

The model of the educational program in the specialty 7R01148 “Nuclear Medicine” is determined on the basis of the final learning outcomes of residents (RO-1 - RO-6).

To implement the educational program in the specialty 7R01148 “Nuclear Medicine”, the organization’s documents contain EMCD, which defines the goal, takes into account the integration of practical and theoretical components, and independent work. Compliance with State Standards and standard requirements, including the qualification characteristics of a nuclear medicine doctor, has been established.

The organization ensures compliance with ethical aspects in the implementation of the educational program, since experts have studied the code of ethics (decision of the Board of NJSC "AMU" No. 28 of December 26, 2019) and during the interview, residents responded that they were informed about the contents of this document.

An analysis of educational activities showed that the scientific basis and all the achievements of science in the advising disciplines were taken into account, additions were made to the EMCD bibliography and syllabuses, and teachers use them in the classroom.

The mentoring system, which is described in the set of norms and rules governing the relationship of the resident with the teacher/mentor, was evaluated. There are only 2 mentors, whose tasks are to transfer professional knowledge, skills and experience in the specialty “Nuclear Medicine”. The procedure for informing residents about their rights and responsibilities is reflected in the [student code of ethics of NJSC "MUA"](#).

The qualification obtained as a result of completing an educational program in the specialty “Nuclear Medicine” corresponds to level 7 of the national qualification framework (**ESG1.2**) and has code 7R01148.

Teachers use such methods of teaching residents as CBL - case-based learning, CbD - analysis/discussion of a clinical case, analysis of articles from evidence-based medicine databases (PubMed, Cochrane Library, etc.). The list of teaching methods is described in syllabuses. Thanks to these methods, residents can take part in the provision of medical care to patients. Teachers can provide a resident with supervision of approximately 2-3 thematic patients per day and more than 50 per month. For example, residents of the educational program in the specialty 7R01148 “Nuclear Medicine” upon completion of training will carry out such manipulations as consultation patients before radionuclide diagnostics and radionuclide therapy, preparing patients for positron emission tomography/computed tomography, single-photon emission computed tomography, radionuclide therapy, conducting and interpreting single-photon emission computed tomography/computed tomography for various diseases of organs and systems, planning radionuclide therapy with application of nuclear medicine methods, patient selection, interventional procedures associated with the

administration of radiopharmaceuticals, radionuclide therapy for various diseases of organs and systems.

Experts have found that the principles of academic honesty and anti-plagiarism are fully implemented in educational organizations. This is reflected in the document Code of Academic Integrity (decision of the Board of NJSC “AMU” No. 29 dated 10/08/2020). Residents are trained to promptly collect informed consent from patients for any diagnostic and therapeutic procedures. The experts noted that the medical records contain a corresponding document signed by the patient.

Thus, by the end of the 2-year training, residents will acquire basic skills in nuclear medicine, which will allow them to work in institutions such as the Centre for Nuclear Medicine of the RSE on the REM "Hospital of the Medical Centre of the President's Affairs Administration of the Republic of Kazakhstan" and the Department of Nuclear Medicine of the Clinical-Academic Department of Radiology and nuclear medicine of the CF "University Medical Centre" of Nazarbayev University (ESG 1.2).

The experts did not establish any violations with respect to the principle of equality in postgraduate education and continuous professional development, since the educational organization complies with the Constitution of the Republic of Kazakhstan, the Law on the Languages of the Peoples of the Republic of Kazakhstan and other regulatory legal acts in the field of education and healthcare.

This demonstrates compliance with Standard 2 in terms of tailoring training to the needs of residents.

2.2 Scientific method

In the EP for residency, a central place is given to the development of modern clinical thinking skills, interpretation of the results of clinical studies taking into account evidence-based medicine, the presence of concomitant diseases, and the patient's profile in a specific clinical situation. To achieve the final learning outcomes, the student must use the knowledge and skills of evidence-based medicine at all levels of medical care.

Practical training includes elements of problem-based learning and project research. The educational program includes disciplines in which the knowledge of evidence-based medicine is used in determining the effectiveness of diagnostic algorithms, choosing effective medical diagnostic tactics, during clinical reviews, participation in medical conferences, including clinical studies. When talking with residents, experts learned that they use scientific evidence in their training and know the basics of evidence-based medicine. The teachers said that they teach residents methods of critical evaluation of literature, articles and scientific data, and the application of scientific developments. The research work of residents of the specialty “Nuclear Medicine” is planned to be carried out at all bases of the Scientific Research Institute of Radiology named after Academician Zh.Kh. Khamzabaev.

2.3 Structure, content and duration of the residency program

The educational program in the residency specialty “Nuclear Medicine” was developed in accordance with the Order of the Ministry of Health of the Republic of Kazakhstan dated July 4, 2022 No MOH RK-63 “On approval of the State Compulsory Educational Standard for levels of education in the field of health care” by Order of the Ministry of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No 152 “On approval Rules for organizing the educational process on credit technology of education”; Order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 12, 2018, order No 563 “On introducing amendments and additions to the order of the Ministry of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No 152 “On approval of the Rules for organizing the educational process in credit technology of education””; Standard training programs of the Ministry of Health of the Republic of Kazakhstan. The educational program was discussed at a joint meeting of employees of the Department of Radiology named after acad. J.H. Khamzabaev and the Department of Radiation Diagnostics and Nuclear Medicine dated February 28, 2023, protocol No. 7; approved by the AC on May 3, 2023, protocol No. 9. The educational program was approved at a meeting of the AC on July 30, 2023, Minutes No. 7.

The program is included in the EPVO register of the Ministry of Science and Higher Education

(MSHE RK). Reviewed by employers: Ph.D. Skakova G.A. - Department of Nuclear Medicine, CF "UMC", Doctor of Medical Sciences Shanazarov N.A. - Deputy Director for Strategic Development, Science and Education of the RSE on the REM "Hospital of the Medical Centre of the President's Affairs Administration of the Republic of Kazakhstan"

The residency training program complies with international requirements, level 7 of the national qualification framework in medical education and the Qualifications Framework in the European Higher Education Area.

In accordance with the classifier, the specialty is legitimate and the graduate, upon completion of the educational program, is issued a certificate of completion of residency with the qualification "nuclear medicine doctor", an annex to the certificate (transcript) indicating a list of disciplines studied with grades, and the amount of academic hours.

The content of the EP and the catalogue of elective disciplines reflect the needs of the healthcare system, including at the suggestion of employers, as well as the specifics of research and scientific achievements of teachers. These include the following: Nuclear medicine methods in the diagnosis of cardiac diseases, PET-CT in the diagnosis and assessment of the effectiveness of treatment of malignant neoplasms, PET-MRI in the diagnosis and assessment of the effectiveness of treatment of malignant neoplasms, Osteoscintigraphy in the diagnosis of metastases in the skeletal system. For the successful implementation of the educational program in the specialty 7R01148 "Nuclear Medicine", the organization has resources for organizing the assessment of practical skills of residents (PET/CT Siemens Biograph 40 TruePoint (2011); PET/CT GEDiscoveryMI (2020); SPECT/CT Siemens SymbiaT6 (2011); SPECT/CT GEDiscovery 670 DR (2020)). However, there are difficulties in planning and carrying out radionuclide therapy. Experts have determined that the educational program takes into account legal requirements.

The theoretical component of the educational program is 140 credits/4200 hours, including a cycle of major disciplines - 134 credits, an elective component - 4 credits, certification - 2 credits. The practical component of the educational program includes mastering such skills as consulting patients before performing radionuclide diagnostics and radionuclide therapy, preparing patients for positron emission tomography/positron emission tomography - computed tomography, single photon emission computed tomography, radionuclide therapy, conducting and interpreting positron emission tomography tomography/computed tomography, single-photon emission computed tomography/computed tomography for various diseases of organs and systems, planning of radionuclide therapy using nuclear medicine methods, patient selection and interventional procedures associated with the administration of radiopharmaceuticals, carrying out radionuclide therapy for various diseases of organs and systems. Possible future roles of a residency graduate, namely, a medical expert, a manager, are formed through such disciplines as "Radionuclide Diagnostics", "Radiology", and "Radionuclide Therapy". The legal aspects of a doctor's activities will also be discussed in these disciplines. The scientific component in resident training is formed through participation in the work of the research team.

NJSC "AMU" guarantees adjustments to the structure, content and duration of the educational program in the event of any changes in various sciences, demographics, and in response to the needs of the healthcare system. For this purpose, there is a [feedback](#) mechanism with stakeholders.

The organization has an agreement with 2 clinical bases: Clinical and Academic Department of Radiology and Nuclear Medicine of CF "University Medical Centre" of Nazarbayev University, Department of Nuclear Medicine, [Clinical and Academic Department of Radiology and Nuclear Medicine of CF "University Medical Centre"](#) (Agreement No. 23.124- 18-164 04/29/2019) and [RSE on the REM "Hospital of the Medical Centre of the President's Affairs Administration of the Republic of Kazakhstan"](#) Centre for Nuclear Medicine (Agreement No. 5.2.2 - D152 dated 04/05/2022).

At the same time, to the question "Do representatives of residents participate in the development of educational programs?", the experts received the following answer that there was no admission of residents for this specialty.

2.4 Organization of training and the relationship between postgraduate medical education and the provision of medical care

Management of the educational process, reflected in the self-assessment report (Standard 2) and general approaches to management were confirmed during a visit to the CF "University Medical Centre" of Nazarbayev University, the department of nuclear medicine, the RSE on the REM "Hospital of the Medical Centre of the President's Affairs Administration of the Republic of Kazakhstan" Centre for Nuclear Medicine and conversation with the head of the Research Institute named after Zh.Kh. Khamzabaev, staff of the Residency School. At the same time, verification of **standard 2** showed that NJSC "AMU" assigned responsibility for the management of the educational program 7R01148 "Nuclear Medicine" to the Zh.Kh. Khamzabaev Research Institute. The clinical bases of the Research Institute named after Zh.Kh. Khamzabaev are the Department of Nuclear Medicine of the KF "University Medical Centre" of Nazarbayev University, the Centre of Nuclear Medicine of the Hospital of the Medical Centre of the Administration of the President of the Republic of Kazakhstan, which in terms of equipment correspond to the specialty "Nuclear Medicine" and are accredited medical organizations in the city of Astana. The experts got acquainted with the work of clinical sites; a total of 6 meetings were held and cross-interviews with mentors and teachers.

Experts analysed information about the availability of accreditation of clinical sites and concluded that the profile of the medical institution corresponds to the specifics of training future residents.

Training of residents in specialty 7R01148 "Nuclear Medicine" is aimed at meeting the needs of practical healthcare, since there is a shortage of specialists in this specialty in Kazakhstan. Therefore, this organization is specialized in the field of nuclear medicine and provides a lot of opportunities and conditions for qualified training of nuclear medicine specialists. Thus, during a conversation with the management of the organization, experts received information about the examination and inclusion of EP 7R01148 "Nuclear Medicine" in the EPVO register of the Ministry of Science and Higher Education (MSHE RK). During the survey, teachers confirmed that training of residents will be carried out directly in the nuclear medicine centres of leading clinics in Astana. Residents of this specialty will be able to advise patients before performing radionuclide diagnostics and radionuclide therapy, prepare patients for positron emission tomography/positron emission tomography - computed tomography, single-photon emission computed tomography, radionuclide therapy. Experienced mentors will facilitate this.

Integration between education and medical care (on-the-job training) is carried out through supervision, consultation of patients together with clinical mentors who apply to nuclear medicine centres. Training will be conducted in accordance with clinical protocols.

The following employees took part in the planning, discussion, approval and review of the educational program 7R01148 "Nuclear Medicine": Head of the Department of Radiology named after Zh.Kh. Khamzabaev NJSC "AMU" Rakhimzhanova R.I., Head of the Department of Radiology and Nuclear Medicine NJSC "AMU" Abdrakhmanova Zh.S., Professor of the CF "UMC" Dautov T.B., c.m.s., Physician of the Department of Nuclear Medicine of the CF "UMC" Skakova G.A., Deputy Director for Strategic Development, Science and Education of the RSE on the REM "Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan" of the city of Astana, Doctor of Medical Sciences Shanazarov N.A.

Conclusions of the EEC on the criteria. Compliant out of 22 standards (including 19 basic, 3 improvement standards): fully - 20, partially - 2, do not comply - 0.

Recommendations for improvement identified during the external visit:

- 1) To introduce into the educational program a discipline or topic on the scientific foundations and methodology of medical research.
- 2) To develop criteria for developing the research skills of residents of 7R01148 "Nuclear Medicine".

Standard 3: ASSESSMENT

3.1 Assessment methods

The general policy for the assessment of residents, including the timing of the assessment, assessment criteria, methods and forms of implementation, are reflected in the syllabuses of each discipline.

According to the [“Regulations on the ongoing monitoring of academic performance, intermediate and end-of-course assessment of students”](#) (dated January 20, 2021 No. 1), the form of current, midterm and final monitoring is established by the department, depending on the specifics of the discipline and is also prescribed in the syllabus. The study of control and measurement tools (50 tests, 10 tasks) showed that the organization has implemented an appropriate assessment policy that allows for a comprehensive assessment of the educational achievements of residents. During the interview, residents talked about the forms of assessment, so in classes assessment is carried out using cases, presentations, tests, tests, situational tasks, assessment of practical skills using the OSCE method and that they are satisfied with everything. They also receive regular feedback from teachers. The system of appealing assessment results is reflected in the document “Academic Policy of NJSC “AMU” and during the period of operation of the educational organization there were no precedents for appeal. The assessment covers not only knowledge and skills, but also professional behavior and communication skills, as evidenced by the criteria of the CbD assessment sheet.

The criteria for admission to the final certification are an evaluation of admission rating and an evaluation of the end-of-course assessment. This is documented in the “Academic Policy of NJSC “AMU”.

Admission to independent examination of residents is provided with a positive evaluation (evaluation of the end-of-course assessment ≥ 50 points) both according to the admission rating and according to the final control assessment.

Validation and assessment of the reliability of resident assessment methods (tests, tasks, cases) is carried out as follows: trained testologists conduct a preliminary analysis of tests for compliance of test questions with the EP, carrying out technical specifications, methodology for compiling test tasks in accordance with international standards

In educational organizations, there is a practice of involving external examiners in assessing residents, which is documented in the [“Academic Policy of NJSC “AMU”](#) and (Approved by the decision of the Board of NJSC “AMU” dated January 20, 2021 No. 1 [Regulations on ongoing monitoring of academic performance, intermediate and final certification of students](#)).

This ensures the independence and objectivity of the evaluation results. To conduct certification of residents of the specialty “Nuclear Medicine”, external examiners are planned: Kanafin Gabit Kinayatovich - doctor of the nuclear medicine department, CF "UMC" and Skakova Gulnara Algayevna - candidate of medical sciences, doctor of the nuclear medicine department of CF "UMC".

Thus, to verify the data of **standard 3**, the experts asked questions to the director of the Research Institute named after Zh.Kh.Khamzabaeva documents and methods for assessing residents.

The results of the resident assessment are documented in the Platonus electronic journal of the ACS with the subsequent formation of an examination sheet.

The procedure for appealing assessment results is described in the [«Academic Policy of NJSC AMU](#), which was approved in 2023. To date, there have been no appointments for residents of the Nuclear Medicine specialty.

During a visit to the clinical bases: CF "University Medical Centre" of Nazarbayev University, Department of Nuclear Medicine, RSE on the REM "Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan" Centre for Nuclear Medicine and during an interview with employees of Ryskulova G.O. - Head of the Department of Nuclear Medicine of CF “UMC”, Saduakasova A.B. – Doctor of Medical Sciences, Head of the Nuclear Medicine Centre of the RSE on the REM "Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan", the commission was convinced that there is a documentation system that is transparent and accessible to all teachers and staff, and includes documents such as annual operating plans, annual reports, regulations of departments, agreements with teachers and residents and educational and

methodological documentation (educational program, working curricula, syllabuses), evidences, certificates and verifications. A review of the website <https://amu.edu.kz/> showed that its pages contain the documents necessary for residents for admission to residency and there is information on the EP specialty “Nuclear Medicine”, which is regularly updated.

During a visit to the organization, management was asked the question: “Are external examiners involved in order to improve the fairness, quality and transparency of the assessment process?” A positive response was received.

3.2 Relationship between assessment and learning

When conducting interviews with 3 teachers regarding assessment methods, the experts received convincing evidence that assessment methods and teaching methods are compatible with the established learning outcomes. The experts examined the resources for organizing the assessment of knowledge and practical skills, namely, syllabuses, assessment sheets, and equipment.

Feedback from residents based on the results of their assessment is collected in the form of an anonymous questionnaire, after which an analysis of the obtained training results is carried out to correct teaching methods. In interviews, residents confirmed that they receive feedback after completing their training.

The interviewed 2 employer representatives also indicated the need and great need for nuclear medicine specialists. Employers said that they themselves participate in the assessment of residents, since they are included in the advisory bodies of the NJSC "AMU". But the educational organization did not provide systematic feedback to them. Employers believe that they wanted to see the strongest skills in residency graduates such as communication, teamwork, and knowledge of the regulatory framework and medical law.

Conclusions of the EEC on the criteria comply with 9 standards (including 6 basic, 3 improvement standards): fully - 7, partially – 2, do not comply – 0.

Recommendations for improvement identified during the external visit:

- 1) To automate the validation of test tasks, cases and other control and measurement tools;
- 2) To provide feedback to residents after midterm and final exams.

Standard 4: RESIDENTS

4.1 Admissions policy and selection

The educational organization has a policy for the admission of residents, which is called the [Rules for admission to residency at NJSC "AMU"](#) for the current academic year.

Approaches to the admission of residents are based on the requirements of the country and internal regulations, namely, Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 600 dated October 31, 2018 “On approval of the Standard Rules for admission to training in educational organizations implementing educational programs of higher and postgraduate education.” Transparency of the selection procedure and equal access to residency programs is achieved through a competition based on the results of entrance exams, which is confirmed in paragraph 2.2 of the document “Rules for admission to residency at NJSC “AMU”.

The document takes into account the requirements for residency applicants in terms of their previous achievements in undergraduate and internship courses (clause 2.3), and all requirements are described on the University website www.amu.kz, under the heading “Applicants”/“Residency”.

The educational organization has created a barrier-free learning environment, including the presence of ramps, call buttons, elevators, and toilets for the disabled.

Approaches to the admission and transfer of residents from other educational organizations are reflected in clause 9.1.17 Transfers and reinstatement of residents of the document “Academic Policy of NJSC “AMU”.

The appeal procedure based on the results of admission to residency is prescribed in the Rules for Admission to Residency at NJSC "AMU". As of today, there were no cases of appeal, since no reception was held.

The review of the admission and selection policy and the number of residents is carried out annually, and the Admissions Committee is responsible for this.

Thus, the experts validated the data according to **standard 4**. In general, all criteria are met, at the same time, at the current time, admission to the EP “Nuclear Medicine” has not been carried out. The experts familiarized themselves with the documentation for the admission of residents, including the Rules for admission to residency at NJSC "AMU" for the current year. Many of the documents are well written, but there are comments regarding resident participation in the process of developing resident admission and selection policies and providing feedback to residents.

4.2 Number of residents

There was no admission to the EP residency 7R01148 - “Nuclear Medicine”.

4.3 Support and counselling for residents

The practice of academic advising, personal support of residents and the development of not only professional skills were assessed by experts through familiarization with the activities of the residency school. During interviews with residents and graduates, the following information was obtained that support and counselling for residents is provided by staff from the residency school.

Residents are included in such advisory bodies as QAC, AC, and SC.

Financial support for residents is provided through the issuance of a scholarship in the amount of 100,036 tenge and additional financial support for residents with financial support for residents with external academic mobility in the form of payment for air tickets, accommodation, visas and free training. To provide feedback, help boxes “For letters and appeals to the Rector of the University” have been installed in the educational buildings and dormitories of the University, as well as a helpline for students in order to suppress offenses at the University, and blogs have been opened for the Rector and the head of the School of Residency.

To plan the career of residency graduates, from 01/01/2021, the University, by order of the rector, organized a Career and Employment Centre for graduates. The employment rate of graduates of all residency programs in 2022 was 98.9%.

4.4 Representation of residents

The following consultative and advisory bodies function in the educational organization: residency QAC, AC, SC, in the work of which residents participate. To motivate students when participating in various types of community service, one of the important criteria is the student’s [portfolio](#). When surveying residents, experts found that they actually participate in providing feedback after exams.

4.5 Working conditions

Residents receive a monthly stipend in accordance with the document “On approval of the Rules for the appointment, payment and amount of state scholarships for students studying in educational organizations”; from January 2023, residents are paid a stipend in the amount of 100,036 tenge. Residents, if they have a specialist certificate, are given the opportunity to work outside of school hours (no more than 0.5 times the rate).

In total, the educational organization has 2 clinical bases for training residents in the specialty “Nuclear Medicine” and at each it is planned to conduct various therapeutic and diagnostic activities in which residents will participate. For example, in the first year of study, conducting and interpreting positron emission tomography/computed tomography for various diseases of organs and systems; conducting and interpreting single-photon emission computed tomography/computed tomography for various diseases of organs and systems; planning and carrying out radionuclide therapy using nuclear

medicine methods, patient selection - will be carried out under the supervision of a clinical mentor, then with gradual independent implementation in the 2nd year of training. Typically, residents will supervise 3 patients per day, and 50_ people per month. NJSC "AMU" has introduced elements of distance learning for residents, for example, through Moodle, Microsoft teams 365, Zoom, free communication between teachers and residents <http://dl.amu.kz/> is ensured.

Conclusions of the EEC on the criteria. Comply with 20 standards (including 14 basic, 6 improvement standards): fully - 19, partially - 1, do not comply - 0

Recommendations for improvement identified during the external visit:

1) To provide for the participation of active residents in the process of developing residency admissions policies or take into account their opinions through feedback.

Standard 5: ACADEMIC STAFF/FACULTY

5.1 Recruitment and selection policy

There are 4 employees in total, of which 2 are full-time teachers and 2 part-time teachers.

The requirements for teachers of the residency program take into account at least five years of work experience in the main activity, compliance with the specialty profile and having been trained as a mentor for the implementation of the residency educational program.

The degree of sophistication is 75%, 4 people have the highest category (100%). The training of residents in the specialty “Nuclear Medicine” is carried out by the following employees: Ryskulova G.O. is a Head of the Department of Nuclear Medicine of the Clinical-Academic Department of Radiology and Nuclear Medicine of the CF "University Medical Centre" of Nazarbayev University and Aigul Bolatovna Saduakasova is a Doctor of Medical Sciences, Head of the Centre of Nuclear Medicine in the Centre of Nuclear Medicine of the RSE on the REM "Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan".

The experts familiarized themselves with the job descriptions of teachers and the [“Regulations on the Department.”](#)

The experts are familiar with the personnel policy of NJSC "AMU" (Board decision dated August 20, 2020, protocol No. 23), the Rules for competitive filling of positions of Academic staff and scientific workers (dated May 14, 2018, No. 26), and the Rules for competitive filling of vacant positions administrative and managerial personnel of NJSC "AMU" (dated 06.20.2020 No. 15). The faculty to resident ratio is 1:3.

The motivation system for teachers and clinical mentors is documented in the Regulations on the rating of educational, scientific and clinical activities of Academic staff PL-AMU-63-19, (dated November 22, 2019, protocol No. 26). A list of teachers, [awarded with state awards of the Republic of Kazakhstan for their contribution to the development of science and education, medals, industry awards of the Ministry of Health and the Ministry of Education and Science of the Republic of Kazakhstan is presented](#)

The principles of ethics and academic integrity of teachers are reflected in the document - [Code of Academic Integrity](#). When talking with teachers, they confirmed their awareness of this issue.

In order to verify the data of **standard 5**, external experts received the opinion of teachers on the personnel policy of NJSC "AMU", which includes knowledge of the requirements for hiring teachers through a competition, the procedure for which is regulated by the document [Rules for the competitive replacement of positions of teaching staff and researchers](#), approved by the decision of the Board of May 14, 2018 No. 26_. The conversation with the mentor A.B. Saduakasova, Doctor of Medical Sciences, head of the nuclear medicine centre of the RSE on the REM "Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan" included questions such as “Mechanisms of motivation and how clinical preceptors are compensated for their participation in resident education?” allowed experts to learn about approaches to attracting staff from clinical sites for teaching (there are 2 such mentors in total), about the strategy and tactics for recruiting residents, and the information security of the educational program.

When surveying teachers, it was found that the majority of 57.14% were completely satisfied with the organization of work and workplace in this educational organization, but 31.43% were partially satisfied. In this educational organization, teachers have the opportunity to engage in scientific work and publish the results of research - 48.57% completely agree, 37.14% partially agree. Satisfied with the work of the HR (personnel) service - 40% completely agree, 45.71% partially agree. Satisfied with the salary - 45.71% completely agree, 20% partially agree.

5.2 Faculty Commitment and Development

In order to verify the data of standard 5, during a meeting with the head of the HR department and during interviews with teachers, experts received an opinion on approaches to developing the pedagogical competence of teachers, motivation to work with residents, mentoring, which includes planning the teaching load, so the head of the department - 520 hours, professor - 570, associate professor - 630, assistant - 680 hours, training as part of continuous professional development.

Experts determined that faculty and residents have adequate time for teaching, mentoring, and learning. The work schedule of teachers is set in accordance with the schedule of classes in residency. Opening hours: from 8.00-17.00. Teachers conduct seminars lasting 1 hour. Time for clinical reviews, clinical rounds - 6.5 hours a day, independent work 1.5 hours a day. Duty is happened 4 times per month.

The experts received answers about the advanced training program for teachers participating in the implementation of the educational program of the specialty “Nuclear Medicine”, such as Doctor of Medical Sciences, Associate Professor Abdrakhmanova Zh.S. completed the seminar “Innovative PBL methodology in medical education” - 54 hours, “Basics of simulation training and writing clinical scenarios” - 12 hours, “Methodology for writing test items” (basic level)” - 27 hours. These events are financed by the educational organization.

From September 1, 2023, clinical mentors of residents sign an agreement on the free provision of services, paragraph 2 of which reflects the procedure for settlements and payments.

In an educational organization, there is an opportunity for career growth and development of teacher competencies - 45.71% of surveyed teachers responded, and 40% partially agreed with this. Studied in professional development programs - 45.71% during this year, 45.71% more than 3 years ago, 0% more than 5 years ago and 5.71% answered “I don’t remember when it was.”

The organization implements social support programs for teachers - 37.14% answered that “yes, there are such programs”, 0% “I have already taken advantage of this”, 14.29% of respondents answered that there are no such programs, and 48.57% of respondents don't know about it.

Conclusions of the EEC on the criteria. Complies with 8 standards (including 7 basic, 1 Standard improvement): fully – 8.

No recommendations for improvement

Standard 6: EDUCATIONAL RESOURCES

6.1 Logistics and equipment

The university has signed agreements on joint activities with 89 medical organizations located in Astana. Training of residents in the specialty “Nuclear Medicine” will be carried out at 2 clinical bases: Clinical and Academic Department of Radiology and Nuclear Medicine of the CF “University Medical Centre” of Nazarbayev University, Department of Nuclear Medicine and at the Centre for Nuclear Medicine of the RSE on the REM "Medical Center Hospital of the President's Affairs Administration of the Republic of Kazakhstan", according to agreements on joint activities (No. 23.124-18-164 dated 04/29/2019 and No. 5.2.2 - D152 dated 04/05/2022, respectively). There are classrooms with a total area of 110 sq.m., Lecture auditoriums - 2, training rooms - 4; conference hall.

The experts visited the library, which provides access for residents and employees on the library website <https://elib.amu.kz/ru/>, as well as on the distance learning portal of NJSC “AMU” at <http://www.dl.amu.kz>, to the SCOPUS electronic databases – <https://www.scopus.com>. ELSEVIER – <https://www.elsevier.com>, OXFORD UNIVERSITY PRESS – <https://global.oup.com>, EPIGRAPH –

<https://epigraph.kz>, SPRINGER – <https://www.springer.com>, EBSCO cinal-
<https://web.p.ebscohost.com>. The volume of the book fund for OP 7R01148 "Nuclear Medicine" is 561, of which textbooks and educational literature - 486 copies, scientific literature - 75 copies, including in the Kazakh language - 6 copies, in Russian - 396 copies, and in English – 159 copies, and they are available in the library.

Before starting the corresponding discipline of the educational program, the resident receives a syllabus from the teacher and knows what skills he must acquire and develop during his training.

In general, at the university, the updating of the material and technical base, including the library background, is carried out at intervals of 5-10 years. The calculation of renewal is given by the formula: receipt * 100 / general fund. General fund is 483,980 copies.

6.2 Clinical sites

A review of the resources showed that they correspond to the goals and objectives of educational activities, for example, clinical bases were visited: CF “University Medical Centre” of Nazarbayev University, the department of nuclear medicine and in the Centre of Nuclear Medicine of the RSE on the REM "Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan", and employees of the organization education ensures collegial and ethical relationships with medical staff and management of the clinical site to achieve the final results of residents. A sufficient number of thematic patients is provided (for example, when interpreting positron emission tomography / positron emission tomography - computed tomography, single photon emission computed tomography / computed tomography for various diseases of organs and systems; planning and conducting radionuclide therapy using nuclear medicine methods, patient selection). During a visit to the above-mentioned clinical bases, experts examined the resources, their compliance with training programs, and accessibility for teachers and residents, how modern this equipment is and meets the needs of students and practical healthcare.

In order to validate the implementation of the self-assessment report data and obtain evidence of the quality of the programs, interviews were conducted with residents. The experts asked questions about satisfaction with training, sufficient time for supervising patients, working with medical documentation, satisfaction with teaching methods and qualifications of teachers, social and moral support for residents in need, and the availability of international databases of professional literature. In general, residents are satisfied with the training, assessment methods, and purposefully entered this organization, because they believe that the educational organization has good resources, image and international connections, at the same time, residents would like more independence in managing patients.

There is a simulation centre equipped with equipment for nuclear medicine, including for emergency conditions. Residents of the educational program in the specialty “Nuclear Medicine” can practice practical skills: “Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS), “Advanced Cardiopulmonary Resuscitation in Paediatrics” " - Paediatric Advanced Life Support (PALS), "Providing medical care at the prehospital stage for injuries" - Prehospital Trauma Life Support (PHTLS), "Neonatal resuscitation" - Neonatal Resuscitation Program (NRP). Providing emergency care is included in the training program in the discipline “Intensive Care in Nuclear Medicine” 120 hours.

Residents showed their commitment to the organization of education, were active in answering questions from external experts, demonstrated their judgment in organizing training, assessing their skills, advisory support, the opportunity to participate in research work, and financing. Experts examined residents’ documents ([portfolios](#), resident assessment results, checklists, residents’ survey results).

6.3 Information technology

Analysis of the standard showed that NJSC "AMU" is provided with a corporate network with wired Wi-Fi access, email (@amu.kz) and a website, educational portal "Sirius", Moodle; corporate information portal of the university with electronic document management, corporate portal e-AMU, automation of the educational process through electronic, distance learning, electronic library with

access to world publishing houses Springer, OVID, Elsevier, Thomson Reuters, access control system. All this allows us to assert that the university manages information to improve its internal quality system.

Residents confirmed that they can use AIS resources, including Sirius, Moodle, Platonus, including distance learning MOODLE (<https://dl.amu.kz/>) in preparation for classes.

Access to patient data and health information system is provided through Damumed. The resident supervises 2-3 patients per day, including completing the necessary documentation under the supervision of a faculty member.

Elements of distance learning methods such as MS Teams and Zoom, while maintaining the ethics documented in the [“Code of Corporate Culture and Ethics”](#) dated September 28, 2012.

6.4 Clinical teams

In order to develop the experience of working in a team among residents, the educational organization conducts activities such as working in multidisciplinary teams when choosing tactics for radionuclide diagnostics and treatment of the most complex patients. As part of mastering the disciplines “Medical Physics” and “Radiation Pharmacology and Radiochemistry”, residents of the specialty “Nuclear Medicine” will need to work intensively with specialist physicists and chemists, which will improve the competence of residents “Communication and Collaboration”.

The resident will be present during consultations and carry out instructions from senior colleagues within the scope of his competence. The resident's performance will be checked by the teacher and documented in a [portfolio](#).

In the questionnaire, residents noted that they have free access to patients at clinical sites and all the conditions for improving their practical skills - 60% of teachers completely agree with this, 25.71% partially agree, 8.57% found it difficult to answer.

6.5 Medical research and advances

At the Research Institute of Radiology named after Zh.Kh. Khamzabaev NJSC "AMU" research work is carried out in the following areas: 1. Development and implementation of research projects on topical problems of radiation diagnostics, including for nomination for grants and other forms of scientific support and other funds; 2. Integration of scientific research and educational programs in the field of radiology, taking into account the requirements of the labour market. Over the past 5 years, the **topics of scientific projects** have been developed: “Introduction of new types of radioisotope research using radiopharmaceuticals: 18F-FDG, 18F-NaF, 11C-methionine, 18F-DOPA”, “Development of technology for labeling leukocytes with the radiopharmaceutical “18-FDG” / Budget program 055 “Scientific and/or scientific and technical activities”, subprogram 101 “Grant funding for scientific research, for 2012-2014”. Teachers of the Scientific Research Institute of Radiology named after Academician Zh.Kh. Khamzabaev published 20 articles in peer-reviewed journals, of which the author of 8 articles is Doctor of Medical Sciences, Professor R.I. Rakhimzhanova, 3 articles - associate professors Kozhakhmetova Zh.Zh., Turzhanova D.E. 22 copyright certificates and 2 patents were received.

https://drive.google.com/file/d/11_iu9g5giD2lgoIG2_KABmPFXwr-BSaC/view?usp=drive_link.

If residents carry out scientific and practical research, they are provided with access to instrumental and laboratory equipment.

For example, in the specialty “Radiology” and “Nuclear Medicine” it is planned to conduct research work on the topic “Scientific and Practical Centre for Teleradiology of Astana Medical University”, scientific supervisor R.I. Rakhimzhanova and “Artificial intelligence and telemedicine in the diagnosis of breast cancer”, within the framework of post-doctoral studies - executor Turzhanova D.E., scientific supervisor R.I. Rakhimzhanova. This information was obtained during an interview with the director of the Scientific Research Institute of Radiology named after Academician Zh.Kh. Khamzabaev.

An interview with 5 teachers, including 3 full-time teachers, showed that there are both successes and problems in the management of education, depending on the specific base (admission of

residents to equipment, purchase of radiopharmaceuticals, a sufficient number of case patients when conducting the discipline “radionuclide therapy”).

6.6 Educational expertise

Expertise in education includes the following areas: Examination of the quality of the implemented EP, carried out by the following structures: 1) discussion and approval of the EP at a joint meeting of the Department of Radiology named after Academician Zh.Kh. Khamzabaev and the Department of Radiology and Nuclear Medicine (Minutes No. 7 of 02/28/2023); 2) review procedure - obtaining a review from the head of the nuclear medicine centre; 3) discussion and approval of the EP at a meeting of the QAC of the EP of residency and additional education; 4) consideration and approval of the EP “Nuclear Medicine” at a meeting of the Academic Council and approval at a meeting of the Academic Council of NJSC “AMU”; 5) expert assessment of the residency program at the Centre for the Bologna Process and Academic Mobility of the National Centre for the Development of the Ministry of Education and Science of the Republic of Kazakhstan. The program was included in the “Register of EP of Higher and Postgraduate Education” and integrated into the Unified Higher Education Management System (UHES).

Sociological surveys, including questions of the quality of education, could become one of the mechanisms for examining education. Currently there are no residents in the specialty “Nuclear Medicine”.

The examination is carried out in the form of an analysis of the needs for specialists, an analysis of resident training methods, and the results allow us to draw conclusions about the quality of innovative changes in postgraduate education.

6.7 Training in other institutions

The academic policy for resident training includes the possibility of training at alternative organizations if existing clinical sites do not cover all topics of the educational program. At the same time, the training of residents in the specialty “Nuclear Medicine” is carried out on the bases of the Research Institute named after Zh.Kh. Khamzabayev (CF “University Medical Center” of Nazarbayev University, the RSE on the REM "Medical Centre Hospital of the President's Affairs Administration of the Republic of Kazakhstan"), where there are nuclear medicine departments.

The preparation of scientific publications is carried out under the guidance of a teacher and does not require additional training bases. However, residents can participate in academic mobility on the basis of the [“Regulations on Academic Mobility of Students”](#).

There is a document on the transfer and offset of learning results between educational organizations: Academic Policy of NJSC "AMU" (approved by decision of the Board No. 27 of September 29, 2023).

45 agreements and memoranda were concluded with organizations, universities, associations, including foreign ones. Such cooperation makes it possible to introduce modern teaching methods and technologies into residency programs.

Conclusions of the EEC on the criteria. Compliant out of 18 standards (including 11 basic, 7 improvement standards): fully -17, partially - 1, do not comply - 0

Recommendations for improvement identified during the external visit:

1) To conclude an agreement with regional or international organizations for the exchange (mobility) of teachers and residents.

Standard 7: PROGRAMME EVALUATION

7.1 Monitoring and evaluation mechanisms

Monitoring of the educational program includes: monitoring the provision of the educational process with the necessary resources (clinical facilities, teaching staff, clinical mentors, curators, educational literature, classroom fund, equipment, etc.); Monitoring the compliance of the curriculum with the requirements of state education standards; Monitoring the compliance of the content of resident training with the requirements of state education standards, qualification requirements for

specialists, professional standards, trends in the development of science and medicine; Monitoring feedback from stakeholders on the quality of the educational program content; Monitoring the performance of residents, progress in mastering the competencies defined in the program, which ensures transparency of the process and results.

An annual analysis of the educational program will allow the educational organization to make adjustments and improve the content. Initially, the educational program was reviewed by employers, who gave a positive assessment. Subsequently, the residency program was approved at a joint meeting of the Departments of Radiology named after Zh.Kh.Khamzabaev and Radiology and Nuclear Medicine (Protocol No. 7 of 02/28/2023). Regular assessment of the quality of the educational program is carried out by the [Residency Committee, the Residency School, the Office of the Registrar, the HR Management Department, and the Center for Planning and Development of Academic Activities](#). The program is included in the EPVO register of the Ministry of Science and Higher Education (MSHE RK) and has passed the examination procedure.

When evaluating the program, the goals and objectives of training and the final learning outcomes are taken into account (through assessment of residents, independent examination). The process of implementing the educational program is assessed through feedback from residents and teachers and the achievements of graduates.

The selection and compliance of teachers and teaching methods is also carried out through feedback from residents.

7.2 Feedback from faculty and residents

NJSC "AMU" regularly collects feedback from teachers, residents, and employers. Questionnaires are sent annually to all interested parties. The questionnaire for employers includes questions about the level of professional skills and qualities of graduates.

Feedback on EP 7R01148 - "Nuclear Medicine" on the basis of the Scientific Research Institute of Radiology named after Academician Zh.Kh. Khamzabaev will be carried out once a year, the deputy is responsible for collecting and processing the results of the discussion. director of the research institute and teacher responsible for residency. A survey of residents is planned after completion of the disciplines. While recruiting and graduating residents in the specialty "Nuclear Medicine", the activities of residency graduates will be monitored in the future.

7.3 Resident and Graduate Outcomes

The results of residents and graduates are indicators of the quality of educational programs. The results of an independent assessment of residents in the specialty "Nuclear Medicine" were not carried out.

Monitoring of residency program graduates is carried out through employer surveys. In general, for NJSC "AMU" the employment rate of residency graduates in 2023 was 98.9%. The university website contains videos with reviews of the work of residency graduate doctors.

Since the entire process of training and monitoring of residents is concentrated at the Scientific Research Institute named after Zh.Kh. Khamzabaev, the results of assessing the clinical practice of residents and graduates immediately go to the responsible persons. The residency school is responsible for residency programs.

7.4 Stakeholder engagement

For feedback from teachers and residents, the rector's blog is used, on which students and university staff receives answers to their questions regarding the conditions for the implementation of the educational program. Representatives of residents are included in the Residency QAC and the University QAC, where they participate in discussing the implementation of the residency educational program.

The interview with employers was conducted online and included questions such as: knowledge of the university's mission, participation in the development of the mission and proposals for the strategic plan, participation in the work of advisory bodies, satisfaction with the basic knowledge and skills of residents, participation in the training of residents through mentoring, providing the department and residents with the necessary resources for practical training and the formation of

clinical thinking, about the problems of interaction with departments and universities in general, 98.9% employment of residency graduates, etc.

7.5 Procedure for approval of educational programs

NJSC "AMU" has established a system for documenting the educational process, including approval of the educational program in the specialty 7R01148 "Nuclear Medicine", which includes the following: discussion and approval in collegial bodies (QAC of residency, QAC of the university) and structural units (profile department, School of Residency, Centre for the Development of Academic Activities). The key structural unit responsible for training residents is the specialized department. The highest governing body of NJSC "AMU" is the Academic Council. The description of these management bodies, composition, responsibility for the organization, coordination, management of the EP is presented in the relevant Regulations ([Regulations on the COC](#), [Regulations on the Academic Council](#), [Regulations on the Department](#)), as well as job descriptions of employees of the residency school and departments.

The educational program 7R01148 "Nuclear Medicine" is approved on the basis of such criteria as compliance with the State Educational Standard, TUP, qualification requirements for residency programs, achievement of goals, implementation of tasks, degree of compliance with the needs of society, requirements of employers, effectiveness of the methodology and evaluation of training. Stakeholders involved in the approval of the educational program include residents, teachers, employers, graduates, experts from the field of nuclear medicine, practicing physicians and representatives of medical organizations.

Conclusions of the EEC on the criteria. Comply with 10 standards (including 7 basic, 3 improvement standards): fully – 10.

No recommendations for improvement

Standard 8: GOVERNANCE AND ADMINISTRATION

8.1 Management

Residency training is carried out in accordance with the requirements of such regulatory rules regarding the admission of residents, such as Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 600 dated October 31, 2018 "On approval of the Standard Rules for admission to training in educational organizations implementing educational programs of higher and postgraduate education."

To implement the educational program in the educational organization, there is an organizational structure in which the educational sector is represented by the residency school, the Scientific Research Institute of Radiology named after Zh.Kh. Khamzabaev. Upon completion of the training program, residents pass the State Certification Exam and will then be awarded the qualification "Nuclear Medicine Doctor" and issued a certificate.

Ensuring the quality of postgraduate training at NJSC "AMU" is carried out thanks to a process approach to the management of educational programs. The university has developed a process map "Managing the process of postgraduate education KP-AMU-EP-13-16" dated 03/17/2016. The dean of postgraduate education, Zharlyganova D.S., and the leading specialist of the dean's office of postgraduate education, Tulebergenova A.K., took part in the development of the program.

8.2 Academic leadership

The responsibilities and duties of the management and staff for postgraduate medical education are determined, which are assigned to the residency school and are enshrined in a regulatory document. Transparency of management and decision-making in the educational process is ensured by compliance with the [Academic Policy of NJSC "AMU"](#).

NJSC "AMU" evaluates the management of the educational process and employees in relation to achieving the mission of the residency program, the expected final results of training by providing feedback to residents and teachers, conducting certification based on the document ["Rules for](#)

[competitive filling of positions of Academic staff and researchers](#)", audits on issues of the educational process.

To the survey question "Do the heads of the organization listen to your opinion regarding issues related to the educational process, research work, clinical work," 40% of teachers answered that systematically, 25.71% answered "sometimes", 17.14% "quite rarely", 5.71% "never", did not answer - 11.43%.

8.3 Training budget and resource allocation

The department responsible for planning and distribution of finances in residency programs is the Office of Planning and Economic Analysis. Funding for the residency program depends on the formation of an annual government order.

The university has an economic council, which contains regulations for the work of the Planning and Economic Analysis Department and determines the validity of the annually drawn up financial plan, which includes a target budget for training, which amounts to 1,725,805 tenge. The financial plan is in line with the strategic plan for the period 2022-2026. The share of funding for residency programs, taking into account the expansion of residency specialties was increased by 69% in 2023. The most funds are spent on the purchase of medical equipment.

A financial report is submitted annually, which is approved by the economic council and demonstrates the distribution of educational resources in accordance with the plan for the implementation and development of the residency program.

8.4 Administration and management

There is an appropriate administrative (_1_person) and teaching (_4_person) staff, including management: Director of the Scientific Research Institute named after Khamzabaev, Professor Rakhimzhanova R.I. To effectively manage the educational process, employees of the Scientific Research Institute named after Zh.Kh. Khamzabaev underwent continuing professional development in 2022-2023 on topics: Radiation diagnostics of diseases of the mammary glands, Magnetic resonance imaging in the diagnosis of malignant neoplasms of the urogenital system.

Experts have established that the quality management system (QMS) includes regular internal and external audits, including those providing a residency program for processes. The University's QMS department once a year conducts an analysis of customer satisfaction (departments/modules and structural divisions of the university).

Teachers are aware of the QMS, which is confirmed during their interviews. The main documents of the QMS are the following: [Policy in the field of the integrated management system of NJSC "AMU"](#); [Goals in the field of the integrated quality management system of NJSC "AMU"](#); ["Managing the process of postgraduate education KP-AMU-EP-13-16"](#)

Evaluation of the administration and management of the educational process in general and the educational program of residency in the specialty "Nuclear Medicine" is carried out through the interaction of the Scientific Research Institute of Radiology named after Academician Zh.Kh. Khamzabaev with all structural divisions in accordance with the organizational structure of NJSC "AMU" and the results demonstrate such achievements as the opening of training in new popular residency specialties such as "Nuclear Medicine".

8.5 Requirements and regulations

NJSC "AMU" complies with the recommendations of national authorized bodies, including the Ministry of Science and Higher Education of the Republic of Kazakhstan and the Ministry of Health of the Republic of Kazakhstan. Thus, in accordance with the classifier of residency specialties (On approval of the Classifier of areas of training for personnel with higher and postgraduate education; Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 13, 2018 No. 569), at NJSC "AMU" at the beginning of the 2023-2024 academic year training in the accredited specialty "Nuclear Medicine" is planned. The specified educational program is provided with relevant educational and methodological documents and teachers.

Conclusions of the EEC on the criteria. Comply with 11 standards (including 8 basic, 3 improvement standards): fully – 11..

No recommendations for improvement

Standard 9: CONTINUOUS RENEWAL

In 2023, a procedure was carried out to update the organizational structure of NJSC "AMU" and as a result, such changes were made as the creation of the Scientific Research Institute of Radiology named after Academician Zh.Kh. Khamzabaev (decision of the Academic Council of NJSC "AMU" Protocol No., whose tasks are aimed at ensuring continuous improvement of the quality of EP residency in specialty 7R01148 "Nuclear Medicine").

The university has developed management documentation:

1. [Development strategy of NJSC "AMU" for 2022-2026](#)
2. [Mission, Vision of the university](#)
3. [Policy in the field of integrated management system of NJSC "AMU"](#)
4. [Goals in the field of the integrated quality management system of NJSC "AMU"](#).

At NJSC "AMU" there is a group for auditing the quality of the educational process, whose task is to annually check the quality of educational and methodological work of departments that train residents. Updates have been made to the resident education process, such as a catalogue of electives, teaching methods, and assessments.

Conclusions of the EEC on the criteria. Complies with 2 standards (including 1 basic, 1 Standard improvement): completely - 2.

No recommendations for improvement

CONCLUSION:

When conducting an external assessment of the educational program, it was found that out of 114 standards (including 82 basic standards and 32 improvement standards), 106 accreditation standards demonstrate full compliance, including 78 basic standards and 28 improvement standards. Partially was met 4 basic standards and 4 improvement standards. No non-compliance with standards has been identified.

Considering that the primary accreditation of the educational program in the specialty "Nuclear Medicine" is being carried out and the admission of residents is planned in 2024, in accordance with the requirements of the Law on Education of the Republic of Kazakhstan, NJSC "AMU" initiated specialized (program) accreditation without a contingent of residents. Therefore, the tasks of the external expert commission were to assess the university's readiness to accept residents; they studied existing principles and approaches in training residents, mechanisms for quality assurance and management of the residency educational program using the example of other educational programs. However, the EEC took a closer look at the organization of nuclear medicine training, including documentation, teaching staff, educational resources and other important issues related to compliance with accreditation standards.

The EEC came to the conclusion that, along with achievements in the training of residents, including the expected effectiveness of training in the accredited educational program "Nuclear Medicine", there are a number of shortcomings that the university must eliminate during the 1st-2nd quarter of 2024.

**5. Recommendations for improving the educational program 7R01148 “Nuclear Medicine”
NJSC “AMU”:**

Standard 1

- 1) It is recommended to actively involve residents in formulating the mission and final learning outcomes;
- 2) To develop a mechanism of motivation and encouragement for the scientific achievements of residents in the specialty “Nuclear Medicine”.

Standard 2

- 3) To introduce into the educational program a discipline or topic on the scientific foundations and methodology of medical research.
- 4) To develop criteria for developing the scientific research skills of residents 7R01148 “Nuclear Medicine”.

Standard 3

- 5) To automate the validation of test tasks, cases and other control and measurement tools;
- 6) To provide feedback to residents after midterm and final exams.

Standard 4







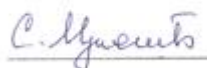

- 7) To provide for the participation of active residents in the process of developing residency admissions policies or take into account their opinions through feedback.

Standard 6

- 8) To conclude an agreement with regional or international organizations for the exchange (mobility) of teachers and residents.

6. Recommendation to the ECAQA Accreditation Council

The members of the EEC established the compliance of the residency educational program in specialty 7R01148 “Nuclear Medicine” with the Accreditation Standards and came to a unanimous opinion to recommend that the ECAQA Accreditation Council accredit this program for a period of 3 years.

Status as part of the EEC	Full name	Signature
Chairman of the EEC	Kurmanova Almagul Medeubaevna	
Foreign expert	Zaripova Zulfiya Abdullova	
Academic expert	Yesenkulova Saule Askerovna	
Academic expert	Talkimbaeva Nailya Anuarovna	
Academic expert	Shabdarbaeva Daria Muratovna	
Academic expert	Shyntas Kasym Malikuly	
Expert employer	Mukasheva Saltanat Bolatovna	
Resident expert	Mukazhanov Nurlan Adilbekuly	

Quality profile and criteria for external evaluation of an educational program (summarization)

Standard	Criteria for evaluation	Number of Standards	BS*/SI	Grade		
				Fully compliant	Partially compliant	Does not compliant
1.	MISSION AND OUTCOMES	14	9/5	8/4	1/1	
2.	EDUCATIONAL PROGRAMME	22	19/3	17/3	2/0	
3.	ASSESSMENT	9	6/3	5/2	1/1	
4.	RESIDENTS	20	14/6	14/5	0/1	
5.	ACADEMIC STAFF/FACULTY	8	7/1	7/1	-	
6.	EDUCATIONAL RESOURCES	18	11/7	11/6	0/1	
7.	PROGRAMME EVALUATION	10	7/3	7/3	-	
8.	GOVERNANCE AND ADMINISTRATION	11	8/3	8/3	-	
9.	CONTINUOUS RENEWAL	2	1/1	1/1	-	
	Total	114	82/32	106	8	
				114		

Список документов, изученных членами ВЭЖ в рамках проведения внешней оценки образовательной программы резидентуры

№	Наименования документов	Количество
1.	Выписка из протокола расширенного заседания кафедры радиологии имени академика Хамзабаева Ж.Х. и ядерной медицины № 7 от 28.02.2023 г.	1
2.	Правила приема в резидентуру ПР-МУА-06-23	1
3.	Академическая политика НАО МУА П-МУА-17-23	1
4.	Правила приема пациентов в отделение ядерной медицины	1
5.	Типовой трудовой договор	1
6.	Показатели по Управлению HR	1
7.	Анализ удовлетворенности работодателей качеством подготовленности выпускников НАО МУА 2022	1
8.	Отчет о результатах анкетирования работодателей по вопросам удовлетворенности качеством подготовки выпускников НАО МУА за 2021 год	1
9.	Штат центра Ядерной медицины	1
10.	Структура типовой учебной программ резидентуры по специальности «Ядерная медицина»	1
11.	ОП Ядерной медицины	1
12.	Положение о научном структурном подразделении ПЛ-МУА-136-22	1
13.	Силлабус образовательной программы резидентуры «Ядерная медицина»	1
14.	Standard университета «Организация учебного процесса по кредитной технологии обучения» СУ-МУА-22-19	3
15.	Приказ об утверждении состава Академического совета	1
16.	Положение об академическом совете ПЛ-МУА-126-23	1
17.	План работы Академического совета на 2023-2024 учебный год	1
18.	План работы Школы резидентуры на 2023 год	1
19.	План работы Центра развития академической деятельности на 2023 год	1
20.	Политика управлениями рисками НАО «МУА»	1
21.	Методика определения бизнес-процессов, присущих им рисков и ключевых индикаторов риска в НАО «Медицинский университет Астана»	1
22.	Кодекс академической честности К-МУА-01-2020	1
23.	Стратегия развития НАО «Медицинский университет Астана» на 2022-2026 годы	1